1. A method to protect a magnetic write head during pole trimming, comprising:

providing upper and lower magnetic poles that surround a write coil, one of said poles being recessed relative to the other whereby there is a step between them;

electroplating a layer of non-magnetic material to fully cover said step: and

then simultaneously polishing both poles as well as said layer of non-magnetic material until an amount of said layer of non-magnetic material remains, thereby forming an air bearing surface without stressing either of said magnetic poles.

2. The method described in claim 1 wherein said electroplated layer of non-magnetic material is selected from the group consisting of NiPd, NiP, and NiCu.

3. The method described in claim 1 wherein said remaining amount of electroplated non-magnetic material has a thickness, in a direction normal to said air bearing surface, of between about 0.3 and 0.5 microns.

4. The method described in claim 1 wherein said layer of electroplated non-magnetic material is deposited to a thickness between about 1.5 and 2.5 microns.

5. A process to form an air bearing surface for a LDCR magnetic write head, comprising:

providing a lower magnetic pole, having a top surface, and forming therein a cavity

containing a write coil that projects above said cavity;

coating said coil with a layer of insulation and a seed layer and thereby filling said cavity;

coating said seed layer and said lower pole top surface with a layer of a positive photoresist;

by exposing through a first mask and then performing a first development, forming from said layer of photoresist a first mold that surrounds the coil while leaving part of said top surface exposed;

through electroplating, depositing an upper magnetic pole on said seed layer and on the exposed top surface;

by exposing through a second mask and then performing a second development, forming a second mold from said first mold, thereby exposing an additional amount of said top surface;

through electroplating, depositing a layer of non-magnetic material on said upper magnetic pole and on said additional exposed top surface;

then removing the second mold; and

then simultaneously polishing said lower magnetic pole and said layer of non-magnetic material until a thickness of said layer of non-magnetic material remains, thereby forming said air bearing surface without stressing either of said magnetic poles.

6. The process recited in claim 5 wherein said write coil projects above said cavity by

between about 3 and 5 microns.

7. The process recited in claim 5 wherein the part of said top surface that is exposed inside said first mold is between about 2 and 4 microns.

8. The process recited in claim 5 wherein the part of said additional amount of the top surface that is exposed inside said second mold is between about 1 and 2 microns

9. The process recited in claim 5 wherein said electroplated layer of non-magnetic material is selected from the group consisting of NiPd, NiP, and NiCu.

10. The process recited in claim 5 wherein said remaining thickness of electroplated non-magnetic material, in a direction normal to said air bearing surface, is between about 0.3 and 0.9 microns.

11. The process recited in claim 5 wherein said layer of electroplated non-magnetic material is deposited to a thickness between about 2 and 3 microns.

12. A process to form an air bearing surface for a planar magnetic write head, comprising:

providing a lower magnetic pole, having a first top surface and a second top surface

that is parallel to, and lower than, said first top surface, thereby forming a step;

forming a cavity that extends downwards from said first top surface and that is filled with a write coil which is covered by a layer of insulation whose top surface is coplanar with said first top surface;

coating said layer of insulation and said first and second top surfaces with a layer of photoresist;

forming a mold from said layer of photoresist, said mold covering all surfaces except an area that extends from an edge of said cavity to a distance that is sufficient to fully expose said step;

through electroplating, depositing a layer of non-magnetic material to a thickness sufficient to cover all of said step;

removing said mold and then planarizing until said layer of non-magnetic material has a third top surface that is coplanar with said first top surface;

then forming an upper magnetic pole on said first and third top surfaces and on said layer of insulation; and

then simultaneously polishing said upper and lower magnetic poles as well as said layer of non-magnetic material until a thickness of said layer of non-magnetic material remains, thereby forming said air bearing surface without stressing either of said magnetic poles.

13. The process recited in claim 12 wherein said cavity extends downwards from said

first top surface for between about 2.5 and 3.5 microns.

14. The process recited in claim 12 wherein said second top surface is lower than said first first top surface by between about 1.5 and 2.5 microns.

15. The process recited in claim 12 wherein said electroplated layer of non-magnetic material is selected from the group consisting of NiPd, NiP, and NiCu.

16. The process recited in claim 12 wherein said remaining thickness of electroplated non-magnetic material, measures between about 0.3 and 0.5 microns in a direction normal to said air bearing surface.

17. The process recited in claim 12 wherein said layer of electroplated non-magnetic material is deposited to a thickness between about 1.5 and 2.5 microns.

18. A LDCR magnetic write head, having an air bearing surface, comprising:

a lower magnetic pole, having a top surface, from which there extends a cavity containing a write coil, said write coil projecting above said cavity;

a layer of insulation coating said coil whereby said cavity is filled;

an electroplated upper magnetic pole over said layer of insulation;

a layer of an electroplated non-magnetic material on said upper magnetic pole;

said lower magnetic pole extending all the way to the air bearing surface;

said upper magnetic pole extending to within a distance from said air bearing surface whereby there is a space between the upper magnetic pole and the air bearing surface; and

said space being filled with said electroplated non-magnetic material.

19. The magnetic write head described in claim 18 wherein said write coil projects above said cavity by between about 3 and 5 microns.

20. The magnetic write head described in claim 18 wherein said electroplated upper magnetic pole has a thickness between about 2 and 3 microns.

21. The magnetic write head described in claim 18 wherein said electroplated layer of non-magnetic material is selected from the group consisting of NiPd, NiP, and NiCu.

22. The magnetic write head described in claim 18 wherein said space that is filled with electroplated non-magnetic material has a thickness of between about 0.3 and 0.9 microns in a direction normal to said air bearing surface.

23. The magnetic write head described in claim 18 wherein said layer of electroplated non-magnetic material on said upper magnetic pole has a thickness of between about 2

and 3 microns.

24. A planar magnetic write head having an air bearing surface, comprising:

a lower magnetic pole, having a first top surface and a second top surface that is parallel to, and lower than, said first top surface, whereby the lower write pole has upper and lower edges;

a cavity that extends downwards from said first top surface and that is filled with a write coil, said write coil being covered by a layer of insulation whose top surface is coplanar with said first top surface;

an upper magnetic write pole over said cavity and on said lower write pole;

said upper magnetic pole extending as far as said air bearing surface;

said lower edge of the lower magnetic pole extending as far as said air bearing surface; and

an electroplated layer of non-magnetic material between said upper lower pole edge and the air bearing surface.

25. The magnetic write head described in claim 24 wherein said cavity extends downwards from said first top surface for between about 2.5 and 3.5 microns.

26. The magnetic write head described in claim 24 wherein said second top surface is lower than said first first top surface by between about 1.5 and 2.5 microns.

27. The magnetic write head described in claim 24 wherein said electroplated layer of non-magnetic material is selected from the group consisting of NiPd, NiP, and NiCu.

28. The magnetic write head described in claim 24 wherein said electroplated layer of non-magnetic material between said upper pole edge and the air bearing surface measures between about 0.3 and 0.5 microns in a direction normal to said air bearing surface.

29. The magnetic write head described in claim 24 wherein said electroplated layer of non-magnetic material between said upper pole edge and the air bearing surface measures between about 0.3 and 0.5 microns in a direction normal to said first top surface.